Response on the RADIO SPECTRUM POLICY GROUP DRAFT Opinion on the ITU-R World Radiocommunication Conference 2023 from Arqiva

Arqiva is a communications, infrastructure, and media services company at the heart of the broadcast and utilities sectors in the UK. We deliver the broadcast television and radio services relied on by millions of people across the UK and provide satellite data and gateway services. We also provide machine-to-machine connectivity for smart metering within the energy and water sectors.

Radio waves do not respect borders so a decision on spectrum use in one area, such as the EU, will have an impact on neighbouring countries. Equally, spectrum use in neighbouring countries, if different, will impact the EU. So whilst the Radio Spectrum Policy Group (RSPG) opinion concerns a possible EU position with respect to the World Radio Conference 2023 (WRC-23), note should be made of spectrum use outside of the EU in adjoining countries. It is in view of this that Arqiva offers its response to the RSPG opinion on ITU-R WRC-23.

Regarding the RSPG's recommendation on WRC-23 Agenda Item 1.5, Arqiva would like to highlight the following points:

- Interference between mobile and broadcast systems occurs over large distances, as demonstrated by real life cases[1,2] and technical studies in the CEPT and ITU, which means it is not practical for mobile and broadcast systems to share spectrum;
- Broadcast services will continue to be relied on by citizens into the future and in the UK, this has been reflected in the extension of multiplex licences through to at least 2034[3];
- DTT is highly used in many countries across demographic groups, and is especially important to people that are older, less well-off, in areas that are less well connected, or lacking digital skills[4];
- In most countries there is no viable alternative to DTT.

Further:

- There is no clear identified or harmonised use case for mobile within the EU;
- Mobile should use its allocated spectrum more efficiently to meet future demand[5];
- Lack of mobile coverage in rural areas is due to a lack infrastructure, not insufficient spectrum[6,7];
- PPDR has no EU-wide harmonised broadband use case and is yet to start using spectrum already identified for mobile broadband.

And:

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[1] ITU-R Report BT2301-3 National field reports on the introduction of IMT in the bands with co-primary allocation to the broadcasting and mobile services

[2] RSPG22-004final-progress_report_good_offices.pdf (rspg-spectrum.eu) Interference between DTT in Italy and mobile in Slovenia and Croatia.

[3] Future of channels such as ITV2 and Dave secured as Freeview licences renewed for another decade - GOV.UK (www.gov.uk)

[4] The Future of Broadcast TV & Radio (arqiva.com)

[5] In Europe mobile has 306 MHz of sub 1 GHz spectrum identified for IMT but only uses about 2/3 of this spectrum and about 1/3 of this uses dated 2G/3G technology.

[6] How Ofcom is helping to improve mobile coverage - Ofcom

[7] Home - Shared Rural Network (srn.org.uk)

- PMSE shares spectrum with DTT, but it cannot share spectrum with mobile;
- The use of programme-making and special events (PMSE) equipment, which is vital to cultural sectors across communities, is growing and this equipment has no alternative spectrum arrangements in place.

Given the above, Arqiva supports the first option considered by RSPG; that is, No Change (NoC) at WRC-23 with a possible new agenda item at WRC-31. Such a position would provide a period of stability for broadcast and mobile, delivering the certainty needed to allow markets and industries to develop. Broadcasters can continue investing in innovation and development, including the possible move to 5G Broadcast. PMSE will have the time to continue its development of more flexible digital systems, such as the wireless multi-channel audio system (WMAS). It would also allow proponents of mobile to put together coherent harmonised use cases and provide time for broadband infrastructure in Europe to develop. A NoC outcome at WRC-23 and revisiting this item at WRC-31 will put decision makers in a much better position to make an informed, evidence-based decision on the future use of the UHF spectrum.

The alternative option RSPG is considering – a mobile allocation at WRC-23 – would be poor spectrum management, with large areas of Europe at risk of interference to services. The UK's communications regulator, Ofcom, has highlighted that the UK's continued use of DTT "*could limit the potential of several geographically close European countries from being able to deploy mobile broadband in the band*"[8]. Given several countries in the EU rely heavily on DTT, and some of the EU's neighbouring countries, such as the UK, intend to continue using DTT well into the 2030s, a mobile allocation at WRC-23 serves no purpose other than to undermine future development and investment in the broadcast platform. As such Arqiva oppose a mobile allocation at WRC-23.

[8] Call for input: UK preparations for the World Radiocommunication Conference 2023 (WRC-23) - Ofcom section 5.1.11.